

the most recent assessment of the IPCC (AR4) includes projections that climate warming and sea ice decline are likely to continue. This new information as well as other new sea ice information needs to be incorporated into the final analysis.

Our response: We agree that new information on climate warming and sea ice decline, as discussed in the IPCC AR4 as well as numerous other recent scientific papers, is of great significance relative to assessing polar bear habitat and population status and trends. Our final analysis has been updated to incorporate this new information (see “Sea Ice Habitat” and “Polar Bear—Sea Ice Habitat Relationships” sections).

Comment PR7: Polar bear population status information needs to highlight areas of both population decline and population increase, and the relationship of the two to overall status of the species.

Our response: Our final analysis has been updated with new population information (see “Current Population Status and Trend” section).

Comment PR8: The Service did not consider the impacts of listing the polar bear on Inuit economies.

Our response: Under section 4(b)(1)(A) of the Act, we must base a listing decision solely on the best scientific and commercial data available as it relates to the listing five factors in section 4(a)(1) of the Act. The legislative history of this provision clearly states the intent of Congress to ensure that listing decisions are “* * * based solely on biological criteria and to prevent non-biological criteria from affecting such decisions * * *” (House of Representatives Report Number 97–835, 97th Congress, Second Session 19 (1982)). As further stated in the legislative history, “* * * economic considerations have no relevance to determinations regarding the status of species * * *” (Id. at 20).

Comment PR9: Concerning sport hunting, listing will not help reduce take of polar bears.

Our response: As discussed under Factors B and D below, we recognize that sport hunting or other forms of harvest (both legal and illegal) may be affecting several polar bear populations, but we have determined that overutilization is not a threat to the species throughout all or a significant portion of its range. Amstrup et al. (2007) found that the impact of harvest on the status of polar bear populations is far outweighed by the effects of sea ice losses projected into the future. In addition, we have concluded that, in general, national and local management regimes established for the sustainable

harvest of polar bears are adequate. We have determined that polar bear harvest by itself, in the absence of declines due to changes in sea ice habitat, would not be a sufficient threat to justify listing the species in all or a significant portion of its range. However, we have also concluded that harvest may become a more important factor in the future for populations experiencing nutritional stress.

Comment PR10: Inuit will account for climate change in setting subsistence harvest quotas, thus the existing regulatory mechanism is adequate.

Our response: As discussed in this final rule (see “Polar Bear—Sea Ice Habitat Relationships” section), the loss of sea ice habitat is considered to threaten the polar bear throughout its range. Adjusting harvest levels based on the consequences of habitat loss and corresponding reduction in physical condition, recruitment, and survival rates is prudent and precautionary, and such adjustments may be addressed through existing and future harvest management regimes. However, we find that these steps will not be sufficient to offset population declines resulting from loss of sea ice habitat.

Comment PR11: The proposed rule does not adequately reflect the state of traditional and contemporary indigenous knowledge regarding polar bears and climate change.

Our response: We have further expanded this rule to include information obtained from Kavry’s work in Chukotka, Russia (Kochnev et al. 2003) and Dowsley and Taylor’s work in Nunavut, Canada (Dowsley and Taylor 2005), as well as information received during our public hearings. Additionally, we have reviewed information available on polar bears and climate change from the Alaska Native Science Commission (<http://www.nativescience.org/issues/climatechange.htm>). Discussion documents available on their web page generally support the conclusions reached in this document; for example, they observe that: “Saami are seeing their reindeer grazing pastures change, Inuit are watching polar bears waste away because of a lack of sea ice, and peoples across the Arctic are reporting new species, particularly insects” (<http://www.arcticpeoples.org/KeyIssues/ClimateChange/Start.html>). Thus, traditional and contemporary indigenous knowledge recognizes that climate-related changes are occurring in the Arctic and that these changes are negatively impacting polar bears.

Comment PR12: The proposed rule does not sufficiently question the reliability of scientific models used.

Science is not capable of responding to vague terms such as “it is likely” “foreseeable future.”

Our response: Literature used in the proposed rule was the best available peer-reviewed scientific information at the time. The proposed rule was based largely on results presented in the *Arctic Climate Impact Assessment* (ACIA 2005) and the *IPCC Third Assessment Report* (TAR) (IPCC 2001), plus several individual peer-reviewed journal articles. The ACIA and IPCC TAR are synthesis documents that present detailed information on climate observations and projections, and represent the consensus view of a large number of climate change scientists. Thus, they constituted the best scientific information available at the time the proposed rule was drafted. The proposed rule contained a determination of “foreseeable future” (i.e., 45 years) as it pertains to a possible listing of polar bears under the Act, and an explanation of how that 45-year timeframe was determined. This final rule contains the same determination of “foreseeable future” (i.e., 45 years), as well as an explanation of how that 45-year timeframe was determined (through a consideration of reliable data on changes currently being observed and projected for the polar bear’s sea ice habitat, and supported by information on the life history (generation time) and population dynamics of polar bears). Thus, we disagree with the commenter that this is a vague term.

The final rule has been revised to reflect the most current scientific information, including the results of the IPCC AR4 plus a large number of peer-reviewed journal articles. The IPCC AR4 assigns specific probability values to terms such as “unlikely,” “likely,” and “very likely.” We have attempted to use those terms in a manner consistent with how they are used in the IPCC AR4.

We have taken our best effort to identify the limitations and uncertainties of the climate models and their projections used in the proposed rule. In this final rule, we have provided a more detailed discussion to ensure a balanced analysis regarding the causes and potential impacts of climate change, and have discussed the limitations and uncertainties in the information that provided the basis for our analysis and decision.

Public Comments

We reviewed all comments received from the public for substantive issues and new information regarding the proposed designation of the polar bear as a threatened species. Comments and